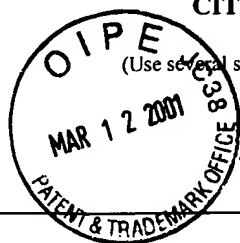


Form PTO-1449 (REV. 8-83)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 23438.00023	APPLICATION NO. 09/649,190
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		APPLICANT Paul V. Cooper	
		FILING DATE August 28, 2000	GROUP 1742
		TITLE: SCRAP MELTER AND IMPELLER THEREFORE	



U. S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
SK		3,836,280	09-17-74	Koch			
		4,068,965	01-17-78	Lichti			
		5,622,481	04-22-97	Thut			
		5,655,849	08-12-97	McEwen et al.			
		6,074,455	06-13-00	van Linden et al.			
		5,741,422	04-21-98	Eichenmiller et al.			
SK		898,499	09-15-1908	O'Donnell			

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
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SK		773,312	10-1980	Soviet Union				
		416,401	6-1974	Soviet Union				
		63-104773	5-1998	Japan				
		58-48796	3-1983	Japan				
		683,469	3-1964	Canada				
		90,756	1-1958	Norway				
		392,268	9-1965	Switzerland				
		942,648	11-1963	United Kingdom				
SK		2,217,784	11-1989	United Kingdom				

EXAMINER

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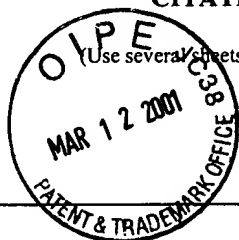
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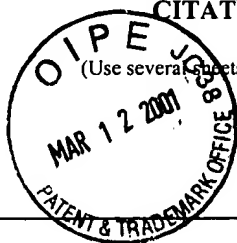
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SK		506,572	10-10-93	Wagener			
		585,188	06-29-97	Davis			
		1,100,475	06-16-14	Franckaerts			
		1,454,967	05-15-23	Gill			
		1,518,501	12-09-24	Gill			
		1,522,765	01-13-25	Wilke			
		1,526,851	02-17-25	Hall			
		1,673,594	06-12-28	Schmidt			
		1,896,201	02-07-33	Sterner-Rainer			
		2,038,221	04-21-36	Kagi			
		2,290,961	07-28-42	Heuer			
		2,488,447	11-15-49	Tangen et al			
		2,515,478	07-18-50	Tooley et al			
		2,566,892	09-04-51	Jacobs			
		2,677,609	05-04-54	Moore et al			
		2,698,583	01-04-55	House et al			
		2,787,873	04-09-57	Hadley			
		2,808,782	10-08-57	Thompson et al			
		2,821,472	01-28-58	Peterson et al			
SK		2,832,292	04-29-58	Edwards			
EXAMINER S. Kastler				DATE CONSIDERED 1-02			

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U. S. PATENT DOCUMENTS

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SK		5,735,668	04-07-1998	Klien			
		209,219	10-22-1878	Bookwalter			
		251,104	12-20-1881	Finch			
		364,804	06-14-1887	Cole			
		1,717,969	06-18-1929	Goodner			
		1,331,997	02-24-1920	Neal			
		5,318,360	06-07-1994	Langer et al.			
		3,512,788	05-19-1970	Kilbane			
		4,867,638	09-19-1989	Handtmann et al.			
		4,126,360	11-21-1978	Miller et al.			
		5,597,289	01-28-1997	Thut			
SK		4,410,299	10-18-1983	Shimoyama			

FOREIGN PATENT DOCUMENTS

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SK		1,185,314	25-03-70	UK				✓
		1800446	11-12-69	DE			YES	
		0665378	02-08-95	EP			YES (5,501,582US)	
SK		9825031	11-06-98	WO				✓

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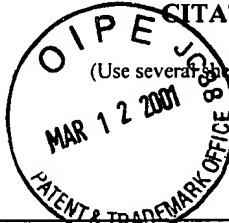
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U. S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
SK		4,556,419	12-03-1985	Otsuka et al.			
SK		5,092,821	03-03-1992	Gilbert et al.			
SK		5,143,357	04-20-1993	Cooper			
SK		5,203,681	04-20-1993	Cooper			
SK		5,558,505	08-24-1996	Mordue et al.			
SK		5,586,863	12-24-1996	Gilbert et al.			


OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

SK		Communication relating to the results of the Partial International search report for PCT/US97/22440 dated 13 May 1998.

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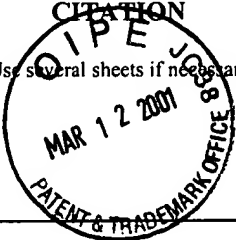
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U. S. PATENT DOCUMENTS

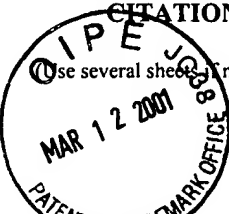
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SK		2,865,618	12-23-58	Abell			
		2,901,677	08-25-59	Chessman et al			
		2,948,524	08-09-60	Sweeney et al			
		2,978,885	04-11-61	Davison			
		2,984,524	05-16-61	Franzen			
		2,987,885	06-13-61	Hodge			
		3,048,384	08-07-62	Sweeney et al			
		3,070,393	12-25-62	Silverberg et al			
		3,092,030	06-04-63	Wunder			
		3,227,547	01-04-66	Szekely			
		3,251,676	05-17-66	Johnson			
		3,255,702	06-14-66	Gehrm			
		3,272,619	09-13-66	Sweeney et al			
		3,289,473	12-06-66	Louda			
		3,291,473	12-13-66	Sweeney et al			
		3,400,923	09-10-68	Howie et al			
		3,459,346	08-05-69	Tinnes			
		3,487,805	01-06-70	Satterthwaite			
		3,512,762	05-19-70	Umbricht			
SK		3,618,917	11-09-71	Fredrikson			
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SK		3,650,730	03-21-72	Derham, et al			
		3,689,048	09-05-72	Foulard, et al			
		3,715,112	02-06-73	Carbonnel			
		3,743,500	07-03-73	Foulard et al			
		3,743,263	07-03-73	Szekely			
		3,753,690	08-21-73	Emley et al			
		3,759,635	09-18-73	Carter et al			
		3,767,382	10-23-73	Bruno, et al			
		3,785,632	01-15-74	Kraemer, et al			
		3,814,400	06-04-74	Seki			
		3,836,280	09-17-74	Koch			
		3,839,019	10-01-74	Bruno et al			
		3,871,872	03-18-75	Downing et al			
		3,873,305	03-25-75	Claxton et al			
		3,886,992	06-03-75	Maas et al			
		3,915,694	10-28-75	Ando			
		3,954,134	05-04-76	Maas et al			
		3,961,778	06-08-76	Carbonnel et al			
		3,972,709	08-03-76	Chin et al			
SK		3,984,234	10-05-76	Claxton et al			
EXAMINER S. Kastler				DATE CONSIDERED 1-02			
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U. S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
SK		3,997,336	12-14-76	van Linden et al			
		4,003,560	01-18-77	Carbonnel			
		4,018,598	04-19-77	Markus			
		4,052,199	10-04-77	Mangalick			
		4,128,415	12-05-78	van Linden et al			
		4,169,584	10-02-79	Mangalick			
		4,286,985	09-01-81	van Linden et al			
		4,322,245	03-30-82	Claxton			
		4,351,514	09-28-82	Koch			
		4,370,096	01-25-83	Church			
		4,372,541	02-08-83	Bocourt et al			
		4,392,888	07-12-83	Eckert et al			
		4,410,299	10-18-83	Shimoyama			
		4,456,424	06-26-84	Araoka			
		4,504,392	03-12-85	Groteke			
		4,537,624	08-27-85	Tenhover et al			
		4,537,625	08-27-85	Tenhover et al			
		4,556,419	12-03-85	Otsuka et al			
		4,557,766	12-10-85	Tenhover et al			
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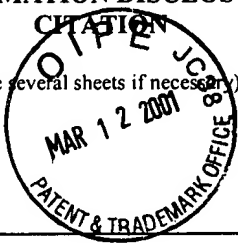
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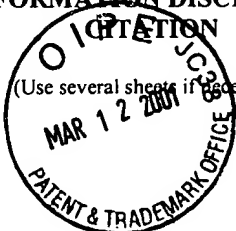
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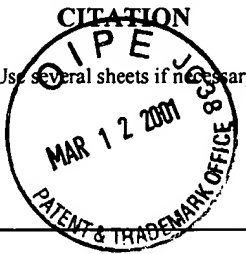
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U. S. PATENT DOCUMENTS							
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SK		4,609,442	09-02-86	Tenhover et al			
		4,611,790	09-16-86	Otsuka et al			
		4,634,105	01-06-87	Withers et al			
		4,696,703	09-29-87	Henderson et al			
		4,701,226	10-20-87	Henderson et al			
		4,717,540	01-05-88	McRae et al			
		4,743,428	05-10-88	McRae et al			
		4,770,701	09-13-88	Henderson et al			
		4,786,230	11-22-88	Thut			
		4,802,656	02-07-89	Hudault et al			
		4,804,168	02-14-89	Otsuka et al			
		4,810,314	03-07-89	Henderson et al			
		4,842,227	06-27-89	Harrington et al			
		4,844,425	07-04-89	Piras et al			
		3,575,525	04-20-71	Fox et al			
		4,360,314	11-23-82	Pennell			
		4,640,666	02-03-87	Sodergard			
	5,209,641	05-11-93	Hoglund et al				
SK		1,669,668	05-15-28	Marshall			
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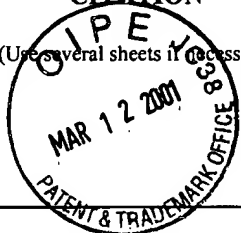
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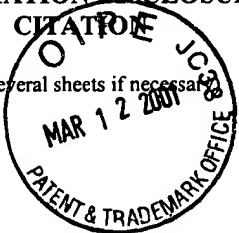
U. S. PATENT DOCUMENTS

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SK		2,948,524	08-09-1960	Sweeney, et al			
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		3,092,030	06-04-1963	Wunder			
		3,255,702	06-14-1966	Gehrm			
		3,291,473	12-13-1966	Sweeney, et al			
		3,715,112	02-06-1973	Carbonnel			
		3,767,382	10-23-1973	Bruno, et al			
		3,836,280	09-17-1974	Koch			
		3,961,778	06-08-1976	Carbonnel, et al			
		3,984,234	10-05-1976	Claxton, et al			
		4,052,199	10-04-1977	Mangalick			
		4,169,584	10-02-1979	Mangalick			
		4,351,514	09-28-1982	Koch			
		4,973,433	11-27-1990	Gilbert, et al			
		5,092,821	03-03-1992	Gilbert, et al			
		5,098,134	03-24-1992	Monckton			
		5,131,632	07-21-1992	Olson			
		5,203,681	04-20-1993	Cooper			
SK		5,662,725	09-02-1997	Cooper			
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U. S. PATENT DOCUMENTS							
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SK		5,634,770	06-03-97	Gilbert et al.			
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		5,685,701	11-11-97	Chandler et al.			
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		3,010,402	11-28-61	King			
		3,459,133	08-05-69	Scheffler			
		3,512,788	05-19-70	Kilbane			
		3,776,660	12-04-73	Anderson et al.			
		3,824,042	07-16-74	Barnes et al.			
		3,985,000	10-12-76	Hartz			
		4,068,965	01-17-78	Lichti			
		4,091,970	05-30-78	Kimiyama et al.			
		4,126,360	11-21-78	Miller et al.			
		4,586,845	05-06-86	Morris			
		4,600,222	07-15-86	Appling			
		4,714,371	12-22-87	Cuse			
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		4,867,638	09-19-89	Handtmann et al.			
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SK		4,989,736	02-05-91	Andersson et al.			
		5,145,322	09-08-92	Senior, Jr. et al.			
		5,165,858	11-24-92	Gilbert et al.			
		5,203,681	04-20-93	Cooper			
		5,268,020	12-07-93	Claxton			
		5,318,360	06-07-94	Langer et al.			
		5,388,633	02-14-95	Mercer, II et al.			
		5,399,074	03-21-95	Nose et al.			
		5,407,294	04-18-95	Giannini			
		5,431,551	07-11-95	Aquino et al.			
		5,468,280	11-21-95	Areaux			
		5,484,265	01-16-96	Horvath et al.			
		5,495,746	03-05-96	Sigworth			
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U. S. PATENT DOCUMENTS							
EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
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EXAMINER S. Kastler				DATE CONSIDERED 1-02			
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							